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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,221	03/23/2004	Yukio Nakanishi	1131-0459PUS2	1690
2292 7590 10/22/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER LAZORCIK, JASON L	
			ART UNIT 1791	PAPER NUMBER
			NOTIFICATION DATE 10/22/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/806,221	<b>Applicant(s)</b> NAKANISHI ET AL.	
	<b>Examiner</b> Jason L. Lazorcik	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11, 12, 13/11, 13/12, 14, and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 12, 13/11, 13/12, 14, and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

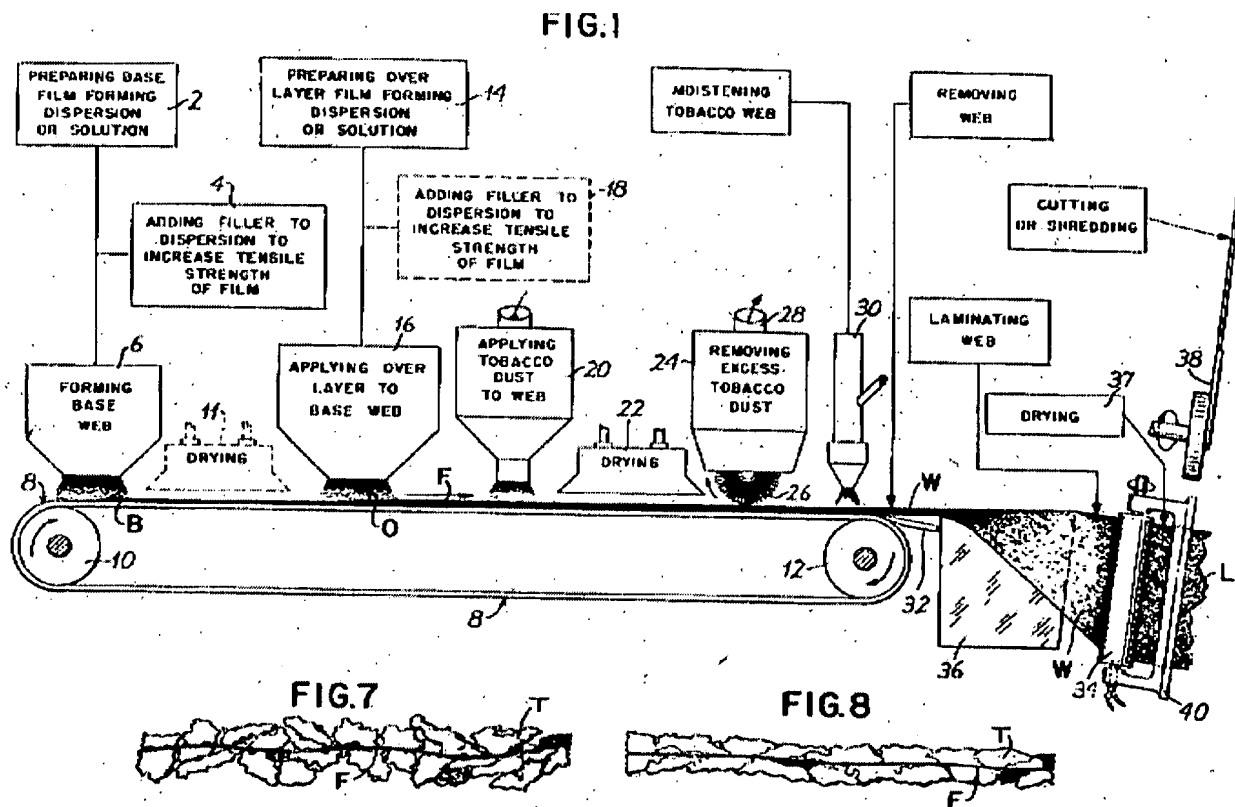
**Claims 8, 12, 13/11, 13/12, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hungerford (US 2,734,510) in view of Arledter (US 3,870,054).

With respect to Claim 8 and particularly in view of the instant reference figure 1, Hungerford teaches

1. an endless net conveyor (8)
2. an upstream forming device (6)
3. a powder spreading device (20) downstream of the upstream forming device
4. a supply device (16)
5. a downstream-side forming device (36) [Claim 13]

Art Unit: 1791

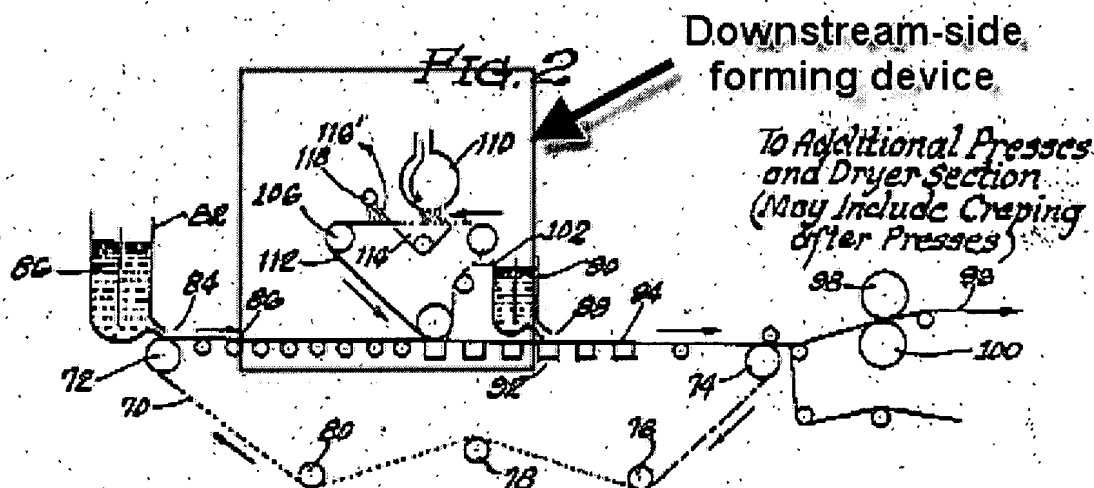
6. spray nozzle (30) between the powder spreading device (20) and the pressing device (34)
7. a heated pressing device (34) arranged downstream of the powder spreading device (Column 6, lines 41-49)



Hungerford teaches that the material applied to the endless net conveyor by the upstream forming device (6) may be in the form of a "film-forming dispersion or solution" (Column 3, lines 51-54). Hungerford teaches the presence of a drying station "indicated generally at 11" (Column 3, lines 72-73), however the reference remains silent regarding the particular details of the drying system or that said drying system may comprise a "suction box" as presently claimed.

Art Unit: 1791

Arledter teaches a "double sheet former" device for the formation of a reconstituted tobacco laminate which one of ordinary skill in the art would recognize as closely related to the Hungerford apparatus. In the Arledter apparatus a film forming dispersion or solution is applied through conduits (27) into chambers defined by partition walls (26) and onto an endless net conveyor (25). Screen suction dehydrators (22') are situated along the length of the endless conveyor in the deposition region to recover excess liquid from the deposited non-woven fibers on the conveyor. Although the Hungerford does not explicitly teach the presence of the claimed "suction boxes", the use of said suction boxes or suction dehydrators would be an obvious modification to one of ordinary skill in the art who was familiar with the Arledter teachings. Specifically, it would have been obvious to pair suction boxes with the Hungerford upstream forming device (6) as a means of both assisting the formation of a non-woven mat while removing excess liquid from the film forming dispersion or solution.



The Hungerford reference is silent regarding the claimed "spraying device arranged on an upstream side" of the upstream forming device. Arledter teaches that it

Art Unit: 1791

is common to incorporate screen cleaning devices in endless net conveyor sheet forming devices. Specifically, Arledter teaches that "for the purpose of cleaning the screens one can use combinations suction and compressed air pipes for removing 95 percent of the juice, whereupon the solution on the screen is diluted by a small quantity of water (30g/m<sup>2</sup>) with the aid of vaporizing nozzles and further liquid is removed from the screens with the aid of tubular suckers so that the proportion of juice is reduced to 0.1 percent. The screens which are now practically free from solution are cleansed under high pressure, and any solid screen deposits are freed once during each 2 minutes of the cycle by a minimum of fresh water which may be cycled, and before they return to the box of substance, are again subject to compressed air to free them from fresh water" (Column 5, lines 1-16).

Since Arledter teaches the presence of several spraying/cleaning devices positioned upstream of the forming device to clean residual matter from the screen, it follows that the claimed "spraying device" would present a merely obvious extension over the Hungerford apparatus to one of ordinary skill in the art at the time of the invention. Specifically it would have been obvious include the claimed "spraying device" upstream of the upstream former as a means to clean the endless screen from residual deposits.

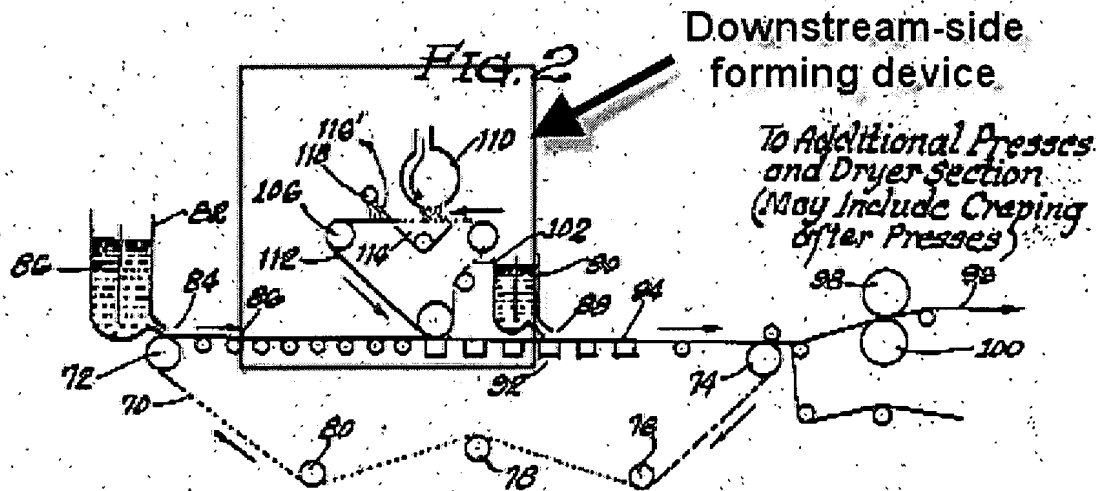
**Claims 13/11, 13/12 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hungerford (US 2,724,510) in view of Clark et. al. (US 2,881,072).

Hungerford further teaches that the produced sheet or strip material W “can also be laminated by bringing two strips of continuous film into back to back relationship and pressing them together as by rollers (34)” (Column 6, lines 35-38). At the outset, it is the Examiners position that Hungerford’s statement regarding “two strips of continuous film” implies the presence of a second former device which feeds a continuous strip at a position downstream of the powder spreading device. It follows from this disclosure that Hungerford contemplated an apparatus arrangement wherein the depicted stationary plow member (36) would be modified in a location downstream from the powder spreading device but upstream from the pressing device in a manner that permitted contacting and laminating of two discrete sheets.

Although Hungerford is silent regarding the particular details of this modified arrangement, the patent to Clark et. al. (US 2,881,072) teaches an analogous apparatus for forming a reconstituted tobacco laminate product. The particular arrangement depicted in Figure 2 (see Excerpt below) provides an upstream former (82) which forms a non-woven sheet (86) on a net conveyor (70). A second sheet of non-woven material is brought into back to back relationship with the first non-woven sheet to form a laminate structure. This “downstream-side forming device” comprises a fiber spreading unit (110) arranged above the net conveyor (70) and includes a mesh conveyor (102) arranged between the fiber spreading unit and the net conveyor. The suction box (114) provides the claimed sucking operation on the mesh conveyor (102). Although not explicitly depicted in the Clark apparatus, it would have been obvious to incorporate the

Art Unit: 1791

claimed peeling means, similar to element 32 in the Hungerford apparatus (see Fig 1 above) to release the transferred sheet from the mesh conveyor.



In summary, the Hungerford reference is silent regarding the particular details of the apparatus which forms a laminate by "bringing two strips of continuous film into back to back relationship". The analogous apparatus for fabricating a reconstituted tobacco laminate as taught by Clark provides a "back to back" laminating arrangement that reads directly upon the each of the claimed elements of the "downstream-side forming device". It follows that the apparatus set forth in the instant claim 14 would represent a mere obvious modification over the combined teachings of Hungerford and Clark for one having a normal level of skill in the art.

### ***Response to Arguments***

Applicant's arguments filed July 23, 2007 have been fully considered but they are not persuasive.



Applicant broadly alleges a distinction between the Hungerford device 6 and the claimed supply device, asserting that the baseweb of the prior art is not equivalent to nonwoven plant fibers of the instant application. Examiner strongly disagrees.

Applicant has provided not substantial evidence to suggest that the claimed structure is patentably distinguished over the structure of the prior art. It is therefore the Examiners position that applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant further argues that the Hungerford apparatus provides a laminated web exclusively by folding of the laminated web. Again, the Examiner strongly disagrees. As indicated in the prior Office Action dated May 18, 2007, Hungerford teaches that "Sheet or strip material W can also be laminated by bringing two strips of continuous film into back to back relationship and pressing them together as by rollers (34)" (Column 6, lines 23-50). Applicants allegations suggesting that the prior art laminated web "does not include a sheet equivalent to the carrier sheet" of the claimed invention are deemed unpersuasive.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1791

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason L. Lazorcik whose telephone number is (571) 272-2217. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLL

  
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